

ABSTRACT

An improved light attenuating compound for use in the production of microdevices is provided. Broadly, the light attenuating compound is non-aromatic and can be directly incorporated (either physically or chemically) into photolithographic compositions such as bottom anti-reflective coatings (BARC) and contact or via hole fill materials. The preferred non-aromatic compounds of the invention are conjugated aliphatic and alicyclic compounds which greatly enhance the plasma etch rate of the composition. Furthermore, the light attenuating compounds are useful for absorbing light at shorter wavelengths. In one embodiment, the inventive compounds can be polymerized so as to serve as both the polymer binder of the composition as well as the light absorbing constituent.